DOCUMENT RESUME

ED 108 077 CG 009 896

AUTHOR Sells, Lucy W.
TITLE Sex and Discipline Differences in Professional Socialization.
PUB DATE 2 Apr 75
NOTE 25p.; Paper presented at the Annual Meeting of the American Educational Research Association (Washington, D. C., March 30-April 3, 1975)

EDRS PRICE MF-$0.76 HC-$1.58 PLUS POSTAGE
DESCRIPTORS *Graduate Study; Higher Education; Norms; *Professional Personnel; *Sex Differences; *Socialization; Speeches; *Values

ABSTRACT

Professional socialization in this paper refers to the process by which neophytes are initiated into the norms and values governing professional and academic disciplines in graduate school by professional gate-keepers. The first part of the paper shows very large differences in the effectiveness of professional socialization by sex, and across professional and academic disciplines. The second part explores some of the sources of ineffective socialization for neophytes and the gate-keepers who determine whether they gain access. The third part of the paper offers some techniques for helping both neophytes and gate-keepers discover more effective ways to achieve professional socialization. (Author/PC)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED108077

SEX AND DISCIPLINE DIFFERENCES IN PROFESSIONAL SOCIALIZATION

Lucy W. Sells
Department of Sociology
University of California, Berkeley

"SOCIALIZATION IN SOCIAL PSYCHOLOGY DENOTES THE PROCESS BY WHICH AN INDIVIDUAL LEARNS TO ADJUST TO THE GROUP BY ACQUIRING SOCIAL BEHAVIOR OF WHICH THE GROUP APPROVES."[1] THIS FUNDAMENTAL PROCESS TAKES PLACE IN ALL SOCIAL SYSTEMS IN WHICH NEW PEOPLE ARE BROUGHT INTO THE GROUP. PROFESSIONAL SOCIALIZATION IN THIS PAPER REFERS TO THE PROCESS BY WHICH NEOPHYTES ARE INITIATED INTO THE NORMS AND VALUES GOVERNING PROFESSIONAL AND ACADEMIC DISCIPLINES IN GRADUATE SCHOOL BY PROFESSIONAL GATE-KEEPERS. ONE MEASURE OF THE EFFECTIVENESS OF THE SOCIALIZATION PROCESS IS THE PERCENTAGE OF PEOPLE WHO DROP OUT OF THE SYSTEM.

THE FIRST PART OF THIS PAPER SHOWS VERY LARGE DIFFERENCES IN THE EFFECTIVENESS OF PROFESSIONAL SOCIALIZATION BY SEX, AND ACROSS PROFESSIONAL AND ACADEMIC DISCIPLINES. THE SECOND PART EXPLORES SOME OF THE SOURCES OF INEFFECTIVE SOCIALIZATION FOR NEOPHYTES AND GATE KEEPERS WHO DETERMINE WHETHER THEY GAIN ACCESS. THE THIRD PART OFFERS SOME TECHNIQUES FOR HELPING BOTH NEOPHYTES AND GATE-KEEPERS DISCOVER MORE EFFECTIVE WAYS TO ACHIEVE PROFESSIONAL SOCIALIZATION.

I. Differences in Effectiveness of Professional Socialization.

IN INTERPRETING THIS SECTION, THE READER SHOULD KEEP IN MIND THE FOLLOWING QUESTIONS:

1. WHAT HAPPENS DIFFERENTLY TO WOMEN, MINORITY STUDENTS, AND TO WHITE MEN THAT MIGHT ACCOUNT FOR THE VERY LARGE SEX AND ETHNIC DIFFERENCES IN EDUCATIONAL ACHIEVEMENT?
2. HOW MUCH OF IT IS SOCIOLOGICAL, IN TERMS OF EXPECTATIONS ABOUT HUMAN BEINGS, AND WHAT THEY MIGHT BECOME, BASED ON TRADITIONAL SEX-ROLES AND ETHNIC ROLES?
3. HOW MUCH OF IT IS PSYCHOLOGICAL, IN TERMS OF AMBITIONS, ASPIRATIONS, AND MOTIVATIONS OF STUDENTS, WHICH, IN TURN ARE SHAPED BY THE EXPECTATIONS OF OTHER PEOPLE.

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

THIS SECTION WILL TRACE THROUGH A NUMBER OF CRITICAL FILTERING POINTS WHICH CUT DOWN ON THE ACCESS OF WOMEN AND MINORITIES BEFORE THEY EVER REACH THE AVAILABILITY POOLS FOR PROFESSIONAL SOCIALIZATION. THE FIRST CRITICAL FILTER IS FREEDOM OF CHOICE IN THE HIGH SCHOOL CURRICULUM.

---

1. A DICTIONARY OF THE SOCIAL SCIENCES, EDITED BY JULIUS GOULD AND WILLIAM L. KOLB, UNESCO, 1964, PAGE 672.

PAPER PRESENTED AT THE ANNUAL MEETING OF THE AMERICAN EDUCATIONAL RESEARCH ASSOCIATION, HILTON HOTEL, WASHINGTON, DC, APRIL 2, 1975.

CG009896

Educators in the United States point with pride to the openness of our public education system, which attempts to provide equality of access to all persons, independently of sex, ethnicity, or social class. They sometimes point with accusation at education systems in other countries for excluding people from access on the basis of social class. However, in the United States, there is a hidden filter which operates to exclude people on the basis of sex, ethnicity, and social class. Those who choose not to take advanced mathematics in high school are effectively filtered out of free choice of undergraduate major at most colleges and universities.

The minimal high school mathematics requirement for admission to the standard freshman calculus sequence is two years of algebra, a year of geometry, and half a year of trigonometry. Until very recently there has been no way for an entering freshman to remedy deficiencies in high school preparation for the standard calculus sequence. This calculus sequence is required for undergraduate curricula in the Agricultural Sciences, Chemistry, Engineering, Environmental Design, Forestry and Conservation, Optometry, most of the Biological Sciences, and Economics. It is not required in Criminology, Education, Jornalism, Law, Librarianship, Social Welfare, and the Social Sciences and Humanities. It is increasingly required for sophisticated graduate work in Political Science, Psychology, and Sociology. The <u>only</u> traditionally high prestige, high paying and white male dominated field that does not have the high school mathematics filter built into the formal requirements for admission is Law. However, high on mathematics tests are indicative of the kind of analytically oriented mind that will succeed in Law School.

In a systematic random sample of applicants for Fall 1972 admission at Berkeley, 57% of the men had taken two years of algebra, a year of geometry, and half a year of trigonometry, compared with 8% of the women. This forty-nine percentage point difference is a powerful measure of sex-role stereotypes which constrain the aspirations and motivations of students deciding which courses to take in high school, even as they constrain the kinds of advice counselors give students.

Among a class up upper-division social science students at Berkeley, there was a large and statistically significant relationship between having

SOCIAL SUPPORT FROM TEACHERS, PARENTS OR PEERS, ANG GOING ON FOR THE ADVANCED ALGEBRA AND TRIGONOMETRY. THE EFFECT OF THE MATHEMATICS FILTER ON MINORITIES CAN BE INFERRED FROM THE PERCENTAGE OF LETTERS AND SCIENCE STUDENTS MAJORING IN THE MATHEMATICS BASED FIELDS. THESE DATA, FROM THE BERKELEY STUDENT RESOURCE SURVEY, SPRING, 1972 INCLUDE UPPER DIVISION TRANSFERS, AS WELL AS GRADUATE STUDENTS. AMONG THE ASIANS, 58% WERE MAJORING IN THE MATHEMATICS BASED FIELDS, COMPARED WITH 30% OF THE BLACKS, CHICANOS, AND NATIVE AMERICANS. THE ETHNIC DIFFERENCE IN CHOICE OF MAJOR, TWENTY-EIGHT PERCENTAGE POINTS, IS LARGER THAN THE SEX DIFFERENCE. AMONG THE MEN, 44% MAJORED IN THE MATHEMATICS FIELD, COMPARED WITH 21% OF THE WOMEN, GIVING A SEX DIFFERENCE OFTWENTY-THREE PERCENTAGE POINTS. WHEN SEX AND ETHNICITY ARE CONTROLLED SIMULTANEIOUSLY, THE DIFFERENCES GET EVEN LARGER. WHILE 68% OF THE ASIAN MEN MAJORED IN THE MATHEMATICS-BASED LETTERS AND SCIENCE FIELDS, ONLY 17% OF THE NON-ASIAN WOMEN DID SO - A DIFFERENCE OF FIFTY-ONE PERCENTAGE POINTS. THE PROPORTION OF ASIAN WOMEN IN THESE FIELDS IS SLIGHTLY HIGHER (45%) THAN THAT OF NON-MINORITY MEN (41%).

THERE IS A STATISTICALLY SIGNIFICANT DROP IN THE PROPORTION OF WOMEN EARNING BACHELOR'S DEGREES IN THE PHYSICAL SCIENCES AT BERKELEY (26%), AND THE PROPORTION OF WOMEN APPLYING TO GRADUATE SCHOOL IN THE PHYSICAL SCIENCES (11%) AT THE SAME TIME, WOMEN SEEM TO BE ADMITTED TO GRADUATE DEPARTMENTS IN THE SAME PROPORTION IN WHICH THEY ARE APPLYING, AND RECEIVING FINANCIAL SUPPORT IN THE SAME PROPORTION IN WHICH THEY ARE APPLYING.

THE FIRST PART OF SECTION ONE HAS SHOWN FILTERS IN THE EFFECTIVENESS OF PRE-PROFESSIONAL SOCIALIZATION. THE FOLLOWING PART SHOWS WHAT HAPPENS TO PEOPLE WHO SURVIVE THE PRE-PROFESSIONAL FILTERS.

TABLE 1, BELOW, WAS CALCULATED FROM A CLASSIC STUDY OF DOCTORAL ATTRITION OF POST-MASTER'S STUDENTS IN THE TRADITIONAL ARTS AND SCIENCES WHO WERE IN GRADUATE SCHOOL BETWEEN 1950 THROUGH 1953. IT SHOWS LARGE AND STATISTICALLY SIGNIFICANT SEX AND DISCIPLINE DIFFERENCES IN PERCENTAGE OF DROPOUTS BY BOTH SEX AND DISCIPLINE. WOMEN IN THE FIFTIES WERE MORE LIKELY TO DROP OUT THAN MEN BY TWENTY PERCENTAGE POINTS. STUDENTS IN THE HUMANITIES WERE MORE LIKELY TO DROP OUT THAN STUDENTS IN THE PHYSICAL SCIENCES BY TWENTY PERCENTAGE POINTS. THESE DIFFERENCES HOLD UP WHEN SEX AND DISCIPLINE ARE CONTROLLED SIMULTANEOUSLY.

TABLE 1

PERCENTAGE OF DROPOUTS AMONG 1950-1953 POST-MASTER'S STUDENTS IN TRADITIONAL ARTS AND SCIENCES, AS OF DECEMBER, 1962, BY SEX AND FIELD

	Humanities	Social Sciences	Biological Sciences	Physical Sciences	Percentage Difference	Total
Men	46%	39%	26%	29%	17*	35%
	(4475)	(6753)	(3113)	(6321)		(20662)
Women	66%	51%	42%	45%	21*	55%
	(1162)	(1150)	(490)	(345)		(3147)
Percentage Difference For Sexes	20*	12*	16*	17*		20*
Total	50%	41%	28%	30%	20*	38%
	(5637)	(7903)	(3603)	(6666)		(23809)

SOURCE: CALCULATED FROM TABLES PRESENTED IN THE CLASSIC STUDY OF DOCTORAL ATTRITION, TUCKER, GOTTLIEB, AND PEASE, ATTRITION OF GRADUATE STUDENTS AT THE PH. D. LEVEL IN THE TRADITIONAL ARTS AND SCIENCES, MICHIGAN STATE UNIVERSITY, OFFICE OF RESEARCH AND DEVELOPMENT AND THE GRADUATE SCHOOL, PUBLICATION NUMBER 8, 1964.

* SEX AND DISCIPLINE DIFFERENCES ARE STATISTICALLY SIGNIFICANT AT THE .05 LEVEL, USING A CONSERVATIVE ESTIMATE OF A TWO TAILED TEST.

IT IS NOT CLEAR FROM THE STATISTICAL EVIDENCE WHETHER WOMEN DROPPED OUT OF DOCTORAL PROGRAMS BECAUSE THEY HAD OTHER REWARDING ALTERNATIVES OPEN TO THEM, OR WHETHER THEY were DRIVEN OUT BY A LESS THAN WELCOMING SOCIAL CLIMATE IN GRADUATE SCHOOL IN THE EARLY FIFTIES.

A SECONDARY ANALYSIS OF DATA ON WOODROW WILSON FELLOWS WHO ENTERED GRADUATE SCHOOL IN THE EARLY SIXTIES SHOWS A SIMILAR PATTERN OF SEX AND DISCIPLINE DIFFERENCES IN EFFECTIVE PROFESSIONAL SOCIALIZATION. THE SEX DIFFERENCE ALMOST DISAPPEARS AMONG THOSE WHO HAD SECOND YEAR FINANCIAL SUPPORT, GETS MUCH LARGER AMONG THOSE WHO HAVE CHILDREN, AND GETS LARGER YET AMONG THOSE RATED 'EXCELLENT' BY THEIR GRADUATE FACULTY IN THE PHYSICAL SCIENCES. EFFECTIVE PROFESSIONAL SOCIALIZATION WILL MAKE IT POSSIBLE FOR THE ACHIEVEMENTS OF STUDENTS RATED 'EXCELLENT' TO SURPASS THOSE OF STUDENTS RATED 'AVERAGE TO FAIR', INDEPENDENTLY OF SEX, ETHNICITY, OR

DISCIPLINE. IN THIS SAMPLE OF HIGHLY TALENTED GRADUATE STUDENTS, THERE WAS NO STATISTICALLY SIGNIFICANT DIFFERENCE IN THE PROFESSIONAL SOCIALIZATION OF WOMEN RATED 'EXCELLENT' AND MEN RATED 'AVERAGE TO FAIR.' TABLE II, BELOW, SHOWS THE PERCENTAGE OF WOODROW WILSON FELLOWS OF THE EARLY SIXTIES WHO DROPPED OUT OF DOCTORAL PROGRAMS BY SEX AND THE RATING OF THEIR GRADUATE PERFORMANCE BY THEIR FACULTY.

TABLE II

WOODROW WILSON FELLOWS: PERCENTAGE DROPOUTS BY SEX AND GRADUATE RATING BY FACULTY

GRADUATE RATING	MEN	WOMEN	SEX EFFECT
EXCELLENT	33% (821)	58% (267)	25*
CONFLICTING RATINGS BY FACULTY	42% (77)	64 (25)	22*
VERY GOOD	44% (654)	67% (270)	23*
AVERAGE TO FAIR	56% (303)	78% (134)	22*
ERRATIC PERFORMANCE BY STUDENT	60% (65)	86% (21)	26*
POOR TO DREADFUL	82% (131)	90% (40)	8 NS
TOTAL RATED STUDENTS	44% (2051)	68% (757)	24*
RATING EFFECT	49*	32*	

SOURCE: THE ORIGINAL MOONEY DATA WERE OBTAINED FOR SECONDARY ANALYSIS BY PERMISSION OF MRS. JANET MITCHELL, DIRECTOR OF THE WOODROW WILSON DISSERTATION FELLOWSHIP PROGRAM.

* SEX AND RATING DIFFERENCES ARE STATISTICALLY SIGNIFICANT AT THE .05 LEVEL, USING A CONSERVATIVE ESTIMATE OF A TWO TAILED TEST. THE NUMBER IN PARENTHESIS IS THE BASE TO WHICH PERCENTAGES ARE CALCULATED. AMONG THE 821 MEN RATED 'EXCELLENT,' 33% DROPPED OUT, COMAPRED WITH 58% AMONG THE 267 WOMEN RATED 'EXCELLENT.'

I TAKE AS GIVEN THAT THE DISCREPANCY BETWEEN ACHIEVEMENTS OF PERSONS RATED EQUALLY ARE THEMSELVES UNEQUAL ARE A MEASURE OF INEFFECTIVENESS OF

PROFESSIONAL SOCIALIZATION. THE CRITICAL QUESTION IS WHETHER THE PROBLEM LIES IN CHARACTERISTICS OF THE NEOPHYTES, CHARACTERISTICS OF THE GATE-KEEPERS, OR IN CHARACTERISTICS OF THE SOCIAL SYSTEM IN WHICH THEY ARE IMBEDDED. THE FACT THAT STUDENTS WITH CONFLICTING RATINGS BY FACULTY FALL BETWEEN STUDENTS RATED EXCELLENT AND THOSE RATED VERY GOOD, AND STUDENTS WITH ERRATIC PERFORMANCE RATINGS FALL BETWEEN AVERAGE TO FAIR AND POOR TO DREADFUL TENDS TO SUGGEST THE PROBLEM LIES IN CHARACTERISTICS OF NEOPHYTES RATHER THAN GATE-KEEPERS OR THE SYSTEM.

THE POLICY IMPLICATION FOR NEOPHYTES IS THAT CONSISTANT PERFORMANCE HAS HIGHER PAYOFF THAN ERRATIC BRILLIANCE. THERE HAS BEEN A DRAMATIC REDUCTION IN THE FOURTH YEAR DOCTORAL DROPOUTS AMONG WOMEN AT BERKELEY. AMONG THE ENTERING CLASS OF 1962, 22% OF THE MEN HAD DROPPED OUT OF DOCTORAL PROGRAMS BY THE FOURTH YEAR, COMPARED WITH 42% OF THE WOMEN. AMONG THE ENTERING CLASS OF 1968, 27% OF THE MEN HAD DROPPED OUT BY THE FOURTH YEAR, COMPARED WITH 27% OF THE WOMEN. THE POLICY IMPLICATION FOR NEOPHYTES IS THAT THE SOCIAL SUPPORT OF THE WOMEN'S MOVEMENT CAN HELP THEM ACHIEVE ACCESS TO THE SYSTEM. THE POLICY IMPLICATION FOR GATE-KEEPERS IS THAT THEY NEED NOT IMPOSE EXPECTATIONS AND EVALUATIONS OF WOMEN IN THE 1970'S ON THE BASIS OF THEIR EXPERIENCES AND OBSERVATIONS OF GRADUATE WOMEN IN THE EARLY FIFTIES AND EARLY SIXTIES. THE IMPORTANCE OF SOCIAL SOLIDARITY AMONG NEOPHYTES AND CHANGING EXPECTATIONS OF GATE-KEEPERS IS CRUCIAL IN IMPROVING THE EFFECTIVENESS OF PROFESSIONAL SOCIALIZATION.

IN A NATIONAL SAMPLE OF GRADUATE STUDENTS AND FACULTY SPONSORED BY THE CARNEGIE COMMISSION ON HIGHER EDUCATION, IT IS CLEAR THAT GATE-KEEPERS AND NEOPHYTES HAVE VERY DIFFERENT PERCEPTIONS OF WHETHER WOMEN GRADUATE STUDENTS ARE AS DEDICATED AS THE MALES. TABLE III, ON THE NEXT PAGE REPORTS THE RESPONSES BY FACULTY AND FEMALE STUDENTS ON TWO PARALLEL QUESTIONS. THE FACULTY ITEM IS "THE WOMEN GRADUATE STUDENTS IN THIS DEPARTMENT ARE NOT AS DEDICATED AS THE MALES." THE STUDENT ITEM IS "THE PROFESSORS IN MY DEPARTMENT DON'T TAKE FEMALE GRADUATE STUDENTS SERIOUSLY."

THE PERCENTAGE DIFFERENCE IN AGREEMENT TO THE TWO ITEMS BY GATE-KEEPER OR NEOPHYTE STATUS AND ACADEMIC DISCIPLINE OFFERS SUPPORT FOR LEO LOWENTHAL'S HYPOTHESIS THAT 'FACULTY FANTASIES ABOUT GRADUATE STUDENTS ARE SURPASSED ONLY BY GRADUATE STUDENT FANTASIES ABOUT FACULTY.' THIS IS A SPECIAL CASE

TABLE III

FACULTY AND STUDENT PERSPECTIVES ON EACH OTHER: PERCENTAGE PLACING BLAME ON THE OTHER

FACULTY: % AGREE THAT "WOMEN GRADUATE STUDENTS IN THIS DEPARTMENT ARE NOT AS DEDICATED AS THE MALES."

FEMALE GRADUATE STUDENTS: % AGREE THAT "THE PROFESSORS IN MY DEPARTMENT DON'T TAKE FEMALE GRADUATE STUDENTS SERIOUSLY.

DISCIPLINE	FACULTY	FEMALE STUDENTS	PERCENTAGE DIFFERENCE
HISTORY	19%	48%	27*
	(395)	(91)	
ENGLISH	22%	42%	20*
	(495)	(149)	
CLINICAL PSYCHOLOGY	22%	28%	6 NS
	(114)	(18)	
POLITICAL SCIENCE	23%	55%	33*
	(307)	(67)	
SOCIOLOGY	23%	40%	17*
	(212)	(45)	
BIOLOGICAL AND PHYSICAL SCIENCES	35%	30%	- 5 NS
	(2403)	(252)	
EXPERIMENTAL PSYCH.	49%	42%	- 7 NS

SOURCE: SECONDARY ANALYSIS OF DATA GATHERED BY THE NATIONAL SURVEY OF HIGHER EDUCATION, SPONSORED BY THE CARNEGIE COMMISSION ON HIGHER EDUCATION.

* STATISTICALLY SIGNIFICANT AT THE .05 LEVEL, USING A CONSERVATIVE ESTIMATE OF A TWO-TAILED TEST.

ALL TABLES BASED ON THE CARNEGIE DATA ARE USING A SUB-SAMPLE OF THE INSTITUTIONS DESIGNATED AS 'HIGH QUALITY UNIVERSITIES' IN THE PUBLIC VERSION OF THE CODEBOOK. MEDIUM AND LOW QUALITY UNIVERSITIES WERE EXCLUDED, AS WERE COLLEGES AND COMMUNITY COLLEGES.

OF THE BROADER HYPOTHESIS, THAT 'IN EVERY SOCIAL SYSTEM, GATE-KEEPER FANTASIES ABOUT NEOPHYTES ARE SURPASSED ONLY BY NEOPHYTE FANTASIES ABOUT GATE-KEEPERS. THE SOLUTION FOR MORE EFFECTIVE PROFESSIONAL SOCIALIZATION CONSISTS OF BRINGING THE FANTASIES OF GATE-KEEPERS AND NEOPHYTES CLOSER TO REALITY. THIS WILL BE DISCUSSED MORE FULLY IN A LATER SECTION OF THE PAPER.

THE FUNDAMENTAL PATHOLOGY I'VE OBSERVED IN A VARIETY OF SOCIAL SYSTEMS CONSISTS OF PEOPLE AT EVERY LEVEL ABSOLVING THEMSELVES OF FAULT OR BLAME BY PLACING IT ON PEOPLE ABOVE AND BELOW THEM, INSTEAD OF TAKING RESPONSIBILITY FOR SOLVING PROBLEMS. TABLE III IS A GOOD EXAMPLE OF PEOPLE OF DIFFERENT STATUS ABSOLVING THEMSELVES BY PLACING BLAME ELSEWHERE.

TABLE IV, BELOW, SHOWS THE RESPONSES OF FACULTY, MALE GRADUATE AND FEMALE GRADUATES TO THE SAME TWO ITEMS. AGAIN, THE PATTERN OF SEX AND DISCIPLINE DIFFERENCES IN RESPONSES APPEARS. ONLY IN THE PHYSICAL SCIENCES ARE THE SEX DIFFFERENCES IN STUDENT AGREEMENT THAT "THE PROFESSORS IN MY DEPARTMENT DON'T REALLY TAKE FEMALE GRADUATE STUDENTS SERIOUSLY NOT STATISTICALLY SIGNIFICANT. THE DIRECTION OF AGREEMENT VARIES BY STATUS. AMONG THE FACULTY, 18% OF THOSE IN THE HUMANITIES AGREE THAT "THE FEMALE GRADUATE STUDENTS IN MY DEPARTMENT ARE NOT AS DEDICATED AS THE MALES," COMPARED WITH 35% OF THOSE IN THE BIOLOGICAL SCIENCES. THOSE IN THE BIOLOGICAL SCIENCES ARE MORE LIKELY TO AGREE BY SEVENTEEN PERCENTAGE POINTS THAN THOSE IN THE HUMANITIES. AMONG THE FEMALE GRADUATES, 40% OF THOSE IN THE HUMANITIES AGREE THAT "THE PROFESSORS IN MY DEPARTMENT DON'T REALLY TAKE FEMALE GRADUATE STUDENTS SERIOUSLY," COMPARED WITH 30% OF THOSE IN THE BIOLOGICAL SCIENCES. THOSE IN THE BIOLOGICAL SCIENCES ARE LESS LIKELY TO AGREE BY TEN PERCENTAGE POINTS.

AGAIN, IT'S NOT CLEAR FROM THE DATA WHETHER AGREEMENT TO THESE ITEMS COMES FROM CHARACTERISTICS OF NEOPHYTES, GATE-KEEPERS, OR THE SOCIAL SYSTEM IN WHICH THEY ARE IMBEDDED. TO WHAT EXTENT ARE FACULTY PERCEPTIONS OF WOMEN GRADUATE STUDENTS AS LESS DEDICATED, AND STUDENT PERCEPTIONS THAT FACULTY ARE NOT TAKING THEM SERIOUSLY A CHICKEN AND EGG PHENOMENON? MORE IMPORTANTLY, WHAT IS THE MOST CONSTRUCTIVE WAY TO INTERVENE, TO HELP FREE NEOPHYTES AND GATE-KEEPERS FROM THE CONSTRAINTS OF TRADITIONAL SEX AND STATUS ROLE EXPECTATIONS?

ANOTHER CLUE TO SEX AND DISCIPLINE DIFFERENCES IN PROFESSIONAL SOCIALIZATION CAN BE FOUND IN TABLE V, ON PAGE 10. IT SHOWS VERY LARGE SEX AND

TABLE IV

FACULTY AND GRADUATE STUDENT PERCEPTIONS OF FACULTY ATTITUDES TOWARD WOMEN GRADUATE STUDENTS, BY SEX AND FIELD.

FACULTY: % AGREEING THAT "THE FEMALE GRADUATE STUDENTS IN MY DEPARTMENT ARE NOT AS DEDICATED AS THE MALES."

GRADUATE STUDENTS: % AGREEING THAT "THE PROFESSORS IN MY DEPARTMENT DON'T REALLY TAKE FEMALE GRADUATE STUDENTS SERIOUSLY."

	FACULTY	MALE GRADUATES	FEMALE GRADUATES	SEX DIFFERENCE
HUMANITIES	18% (1861)	27% (838)	40% (529)	E = 13*
SOCIAL SCIENCES	24% (1647)	29% (804)	39% (309)	E = 10*
PHYSICAL SCIENCES	34% (1215)	25% (762)	31% (101)	E = 6 N.S.
BIOLOGICAL SCIENCES	35% (1155)	20% (394)	30% (151)	E = 10*
FIELD DIFFERENCE	E = -17*	E = 7*	E = 10*	
TOTAL	27% (5878)	20% (2798)	30% (1090)	E = 12*

SOURCE: SECONDARY ANALYSIS OF DATA GATHERED BY THE NATIONAL SURVEY OF HIGHER EDUCATION, SPONSORED BY THE CARNEGIE COMMISSION ON HIGHER EDUCATION. READ 18% OF THE 1861 FACULTY IN THE HUMANITIES AGREE THAT "THE FEMALE GRADUATE STUDENTS IN MY DEPARTMENT ARE NOT AS DEDICATED AS THE MALES." IN CONTRAST, 40% OF THE 529 FEMALE GRADUATE STUDENTS AGREE THAT "THE PROFESSORS IN MY DEPARTMENT DON'T REALLY TAKE FEMALE GRADUATE STUDENTS SERIOUSLY."

* STATISTICALLY SIGNIFICANT AT THE .05 LEVEL, USING A CONSERVATIVE ESTIMATE OF A TWO TAILED TEST.

TABLE V

PERCENTAGE OF DOCTORAL STUDENTS WHOSE PRIMARY FACULTY CONTACT REGARDS THEM AS A COLLEAGUE OR APPRENTICE, BY SEX AND DISCIPLINE.

DISCIPLINE	MEN	WOMEN	PERCENTAGE DIFFERENCE	TOTAL
PSYCHOLOGY	72%	53%	19*	65%
	(176)	(95)		(271)
ANTHROPOLOGY	72%	50%	22*	61%
	(51)	(50)		(101)
CHEMISTRY	58%	54%	4 NS	57%
	(235)	(35)		(270)
PHYSICS	57%	36%	21 NS	56%
	(265)	(14)		(279)
BIOLOGICAL SCIENCES	56%	45%	11*	53%
	(393)	(150)		(543)
SOCIOLOGY	61%	38%	23*	52%
	(101)	(44)		(145)
HISTORY	57%	37%	20*	52%
	(252)	(90)		(342)
ENGLISH	52%	33%	19*	44%
	(197)	(149)		(346)
MATHEMATICS	39%	22%	17*	36%
	(268)	(50)		(318)
DISCIPLINE PERCENTAGE DIFFERENCE	33*	31*		29*

SOURCE: SECONDARY ANALYSIS OF DATA GATHERED BY THE NATIONAL SURVEY OF HIGHER EDUCATION, SPONSORED BY THE CARNEGIE COMMISSION ON HIGHER EDUCATION.

* STATISTICALLY SIGNIFICANT AT THE .05 LEVEL, USING A CONSERVATIVE ESTIMATE OF A TWO-TAILED TEST.

ALL OF THE TABLES BASED ON THE CARNEGIE DATA WERE BASED ONLY ON THE INSTITUTIONS DESIGNATED "HIGH QUALITY UNIVERSITY" IN THE CODEBOOK. THEY DO NOT INCLUDE MEDIUM OR LOW QUALITY UNIVERSITIES, FOUR YEAR COLLEGES, OR JUNIOR COLLEGES.

DISCIPLINE DIFFERENCES IN PERCENTAGE OF DOCTORAL STUDENTS WHO REPORT THAT THEIR PRIMARY FACULTY CONTACT REGARDS THEM AS A COLLEAGUE OR APPRENTICE, RATHER THAN AS A STUDENT. AGAIN, THE CAUSAL DIRECTION IS NOT CLEAR. ARE WOMEN BEING EXCLUDED FROM COLLEAGUEAL OR APPRENTICE RELATIONS, OR ARE THEY EXCLUDING THEMSELVES BY CONSTRAINTS IMPOSED BY PRE-PROFESSIONAL SOCIALIZATION?

TABLE VI, ON PAGE 12, SHOWS THE PERCENTAGE OF FACULTY WHO REPORTED HAVING A MEMBER OF THEIR OWN FACULTY WHO ACTED AS 'SPONSOR' FOR THE FIRST JOB, BY SEX AND DISCIPLINE. AGAIN, THE PATTERN OF SEX AND DISCIPLINE DIFFERENCES IN SPONSORSHIP SUGGESTS BOTH SEX AND DISCIPLINE DIFFERENCES IN THE PROCESS OF PROFESSIONAL SOCIALIZATION. THERE ARE TOO FEW WOMEN IN THE FACULTY SAMPLE TO EXAMINE SEX DIFFERENCES IN SPONSORSHIP WITHIN PROFESSIONAL AND ACADEMIC DISCIPLINES. TABLE VII, ON PAGE 13, SHOWS THE PERCENTAGE OF TOTAL FACULTY WITHIN PROFESSIONAL AND ACADEMIC DISCIPLINES WHO REPORTED HAVING A FACULTY SPONSOR. THE PATTERN OF FACULTY SPONSORSHIP IS CLEARLY MORE PREVELANT IN THE ACADEMIC DISCIPLINES THAN IN THE PROFESSIONAL FIELDS. ENGLISH IS THE ONLY ACADEMIC DISCIPLINE WHICH HAS LOWER RATES OF SPONSORSHIP THAN THE TWO PROFESSIONAL FIELDS WITH THE HIGHEST RATE OF SPONSORSHIP, BUSINESS ADMINISTRATION AND EDUCATION.

THIS VARIATION IN PATTERNS OF SPONSORSHIP SEEMS MORE LIKELY TO BE RELATED TO CHARACTERISTICS OF THE DISCIPLINE AS A SOCIAL SYSTEM THAN TO THE CHARACTERISTICS OF NEOPHYTES OR GATE-KEEPERS.

TABLE VI

QUESTION: "AS A GRADUATE STUDENT, WAS THERE A FACULTY MEMBER WHO ACTED AS YOUR 'SPONSOR' WHEN YOU WERE LOOKING FOR YOUR FIRST JOB?"

% OF FACULTY WHO REPORTED HAVING HAD A FACULTY SPONSOR, BY SEX AND FIELD

FIELD	MEN	WOMEN	SEX DIFFERENCE	TOTAL
HUMANITIES	56%	41%	15*	54%
	(1719)	(235)		(1954)
PHYSICAL SCIENCES	66%	45%	21*	65%
	(1523)	(65)		(1591)
SOCIAL SCIENCES	71%	68%	3 N S	71%
	(1445)	(146)		(1591)
BIOLOGICAL SCIENCES	64%	46%	18*	62%
	(1069)	(110)		(1179)
FIELD DIFFERENCE				
HUMANITIES-SOCIAL	15*	27*		17*
TOTAL	64%	50%	14*	63%
	(5759)	(556)		(6315)

* STATISTICALLY SIGNIFICANT AT THE .05 LEVEL, USING A CONSERVATIVE ESTIMATE.

WHILE 56% OF THE MALE FACULTY IN THE HUMANITIES REPORTED HAVING A FACULTY 'SPONSOR' WHEN LOOKING FOR THE FIRST JOB, ONLY 41% OF THE FEMALE FACULTY MEMBERS DID SO. THE FIELD DIFFERENCE IS ALMOST TWICE AS LARGE FOR WOMEN AS FOR MEN.

Table VII

Percentage of Faculty Who Reported Having a Faculty Sponsor by Professional and Academic Field

Professional Field		Academic Field	
Architecture	26% (174)	English	46% (538)
Library Science	26% (77)	Bacteriology	60% (234)
Social Welfare	29% (195)	Mathematics	62% (583)
Health Fields	36% (1937)	Chemistry	65% (343)
Fine Arts	37% (627)	Economics	68% (354)
Engineering	41% (1119)	Political Science	68% (317)
Law	43% (221)	Physics	69% (414)
Business Administration	53% (450)	Anthropology	70% (141)
Education	57% (473)	Psychology	71% (507)
		History	74% (419)
		Sociology	77% (234)

Source: Secondary analysis of data gathered by the National Survey of Higher Education, sponsored by the Carnegie Commission on Higher Education.

There is a difference of twenty-one percentage points in patterns of sponsorship between Architecture and Education in the professional fields, and a difference of thirty-one percentage points between English and Sociology in the academic fields.

This section of the paper has covered filtering points in pre-professional socialization, shown sex and discipline variation in the effectiveness of professional socialization, and shown sex and discipline variation in patterns of apprenticeship and sponsorship. From the data available, I've been unable to verify whether the differences are due to characteristics of neophytes, gate-keepers, or the social systems in which they are imbedded.

The next section explores some of the sources of ineffective professional socialization as it relates to characteristics of neophytes, gate-keepers, and the social systems in which they are imbedded.

2. Sources of Ineffectiveness of Professional Socialization

Some of the processes which operate to drive women out of doctoral programs also work against men. Solutions derived from working with women students might also be used to reduce attrition among talented men. This section of the paper describes some of the processes identified in the Graduate Women's Project, sponsored by the Affirmative Action Planning Office, and the Women's Center at Berkeley, in Spring, 1973.

This pilot project grew out of concern with understanding the very large sex and discipline differences in doctoral attrition described earlier. We were particularly concerned with isolating those factors which might be different for women graduate students in the 1970's, so that expectations based on the behavior of graduate women in the 1950's and 1960's would no longer be imposed on contemporary women.

The pilot project consisted of an eight week series of two hour sessions in which groups of women from a variety of disciplines attempted to define and articulate problems faced by women in graduate school, and to generate alternative solutions to those problems.

Announcements of the project were mailed to all women in Chemistry, English, Mathematics, Psychology, Sociology, and Zoology; and to all graduate secretaries for posting. In addition, an article describing the project was published in the Daily Californian.[2]

The initial organizational meeting was attended by twenty-four women. Fields represented included Chemistry, English, Mathematics, Zoology, Asian Studies, City Planning, Education, Geology, Political Science, Sociology, Agricultural Economics, Social Welfare, Nursing, and Near Eastern Studies. At this meeting we explained the purpose of the project, and described the nature of our supervision by a clinical psychologist experienced in group processes.

To keep the size of meetings manageable the women were divided into two groups; each met with the co-facilitators in separate two-hour sessions once a week for eight weeks. In order to avoid imposing our own preconceptions upon the participants, the meetings were deliberately unstructured. A number of recurring themes emerged from the discussions. These themes were echoed and amplified independently in

A QUESTIONNAIRE SURVEY OF NON-PARTICIPANTS FROM THE ORIGINAL MAILING. IT SHOULD BE EMPHASIZED THAT SOME OF THE PROBLEMS MENTIONED BY WOMEN IN THE PILOT PROJECT ALSO TROUBLE MEN, AND THAT SOLUTIONS FOR WOMEN MIGHT BE CARRIED OVER TO SOLUTIONS FOR MEN.

THE MAJOR THEMES EMERGING FROM THE GROUP EXPLORATIONS AND THE QUESTIONNAIRE SURVEY CAN BE GROUPED INTO THREE CATEGORIES:

1. FACTORS BEYOND THE CONTROL OF STUDENTS OR FACULTY.
2. FACTORS WITHIN THE CONTROL OF FACULTY.
3. FACTORS POTENTIALLY WITHIN THE CONTROL OF STUDENTS.

EACH GROUP OF THEMES WILL BE DISCUSSED BELOW, WITH GREATEST EMPHASIS ON THOSE FACTORS POTENTIALLY WITHIN THE CONTROL OF STUDENTS THEMSELVES.

1. <u>FACTORS BEYOND THE CONTROL OF STUDENTS OR FACULTY.</u>

* DECLINE IN FEDERAL AND PRIVATE SOURCES OF GRADUATE STUDENT FINANCIAL SUPPORT, WHICH MAKES STUDENTS INCREASINGLY DEPENDENT ON DEPARTMENTAL GOOD WILL FOR SUPPORT.
* RISING TUITION COSTS, AND COSTS OF LIVING IN GENERAL.
* DECLINING JOB MARKET FOR PH. D.'S, COMBINED WITH THE PROLIFERATION OF DOCTORAL PRODUCTION FROM LOWER QUALITY INSTITUTIONS.

2. <u>FACTORS WITHIN THE CONTROL OF FACULTY.</u>

* LACK OF WOMEN AS ROLE-MODELS ON THE FACULTY, WHICH AFFECTS THE SOCIALIZATION PROCESS OF THE WOMAN GRADUATE STUDENT.
* POOR FORMAL ADVISING PROCEDURES, WHICH ARE THE SOURCE OF MUCH UNNECESSARY CONFUSION AND BITTERNESS.
* EXCLUSION OF WOMEN FROM THE INFORMAL COMMUNICATIONS NETWORK BY BOTH FACULTY AND GRADUATE STUDENTS, WHICH CONTRIBUTES TO AN INCREASING SENSE OF INVISIBILITY AS TIME PASSES.
* EXCLUSION OF WOMEN FROM THE TRADITIONAL APPRENTICE RELATIONSHIPS WITH FACULTY.
* INDIFFERENCE OF PROFESSORS. MANY WOMEN FEEL THAT THE REMOTENESS AND UNAPPROACHABILITY OF PROFESSORS MAKES IT DIFFICULT TO SEEK ADVICE AND HELP.
* MYSTERY, CHARACTERIZED BY THE LACK OF EASY AVAILABILITY OF INFORMATION. MANY WOMEN CITED THE ABSENCE OF WELL-DEFINED, <u>PUBLIC</u> CRITERIA FOR EVALUATION, REQUIREMENTS, OR PROCEDURES.
* SECRECY. MANY COMPLAINED ABOUT THE ABSENCE OF INFORMATION ABOUT ATTRITION, FLUNKING, AND SUCCESS RATES WITHIN THE DEPARTMENT; ABOUT THE LENGTH OF TIME IT TAKES TO GET THE DEGREE; ABOUT THE EMPLOYMENT SITUATION ONCE THEY EARN THE DEGREE. THERE WERE ALSO COMPLAINTS ABOUT THE ABSENCE OF DUE PROCESS FOR STUDENTS WHO FELT THEY WERE WRONGFULLY BEING DROPPED FROM DOCTORAL PROGRAMS.

3. Factors potentially within the control of students.

These factors were repeatedly recurring themes in the group discussions and the non-participant questionnaire. Each woman in the group had initially perceived than as unique, personal problems. The major insight arising from the group process was the recognition by the women involved that their feelings were in fact not individual, and even more importantly, that they were not limited to students in their own departments. Recognition of these feelings as pervasive characteristics of graduate student life seems to have made it possible to deal with them more effectively.

Problem areas were raised at two different levels, psychological and sociological.

The Psychological Level

Students mentioned the following kinds of feelings which interfere with performance and inhibit the kind of sustained effort needed for intellectual achievement, and which seem to become more intense as length of time in graduate school increases:

1. Lowering of self-confidence.
2. Lowering of self-esteem.
3. Abivalence about professional and career norms which seem to exclude the legitimacy of personal life.
4. Ambivalence about professional norms which put research ahead of teaching.
5. Ambivalence about success and failure, arising from fears of professional success as inherently defeminizing.
6. At least three different forms of alienation:
   a. Alienation arising from ambiguity about the norms governing academic and professional success. This ambiguity could be resolved by explicit clarification of what it takes to succeed in a field, so that students could decide early in their graduate careers whether or not they want to play the game.
   b. Alienation arising from the student's sense of powerlessness. To the extent that she perceives her academic life outside of her own control, she will be hindered in degree progress. This sense of powerlessness could be resolved by providing greater opportunity for student participation in the decision making processes which affect doctoral progress.
   c. Alienation arising from a sense of the meaninglessness of hurdles to be passed. This could be resolve by clarifying the relationship between curriculum hurdles and their contribution to professional growth and development.

The Sociological Level

Graduate students frequently complain about the infantalization imposed on them by graduate school. The women in the pilot project also mentioned this. A faculty advisor told one of our women scientists that "the trouble with students is they want to take too much charge of their own lives." Of course it is not always clear which way the causal arrow operates. Do faculty behave in a paternalistic manner because students behave in a dependent, childlike manner? Or do students behave in a dependent, childlike manner because faculty expectations elicit and reward such behavior? Is the question of paternalism versus autonomy related to the sex of the student, or does it affect the progress of male students as well?

Women enter graduate school with stronger records than men. They have to be better to survive the initial screening process. All of the women in the exploratory group, and most of the women in the questionnaire survey reported a sense of progressive demoralization, of skidding downhill in their sense of competence, self-esteem, and self-confidence. They see the male graduate students with whom they entered accepted as apprentices and junior colleagues, but feel shut out from such relationships themselves.

Students in the pilot project at Berkeley reported an increasing sense of not being taken seriously, by faculty, or by their fellow students. This sense of not being taken seriously contributes to their sense of demoralization, and of futility in pursuit of the doctorate.

Again, it is not clear whether students pick up and reflect faculty expectations with respect to their seriousness, or whether students behave in a manner which elicits expectations of lack of seriousness.

Students in a number of departments at Berkeley mentioned a lack of community within their departments, and a sense of isolation from both faculty and other students. This is particularly a problem for students in the humanities, where research is a much more individual enterprise than in the physical sciences.

The Berkeley pilot project and the national survey data indicate some problems with graduate student morale. However, informal discussions with faculty in a variety of fields suggest a radically different perception of student morale. There appears to be a denial of the existence of the problem, a position which can best be described by the mythology that "our darkies are happy here on the plantation."

The sharp contrast between student and faculty perceptions of student morale suggests the need for an active program to change the situation. Impressionistic evidence

suggests also that faculty morale with respect to students is low, and that an effective attrition reduction program must be geared to improving both faculty and student morale. This can be justified both in the name of salvaging human resources, and in the name of saving the tax-payer's money, as well as in the name of opening up opportunities for women and minorities for access to the availability pools for faculty recruitment, hiring, promotion, and tenure.

This section has reviewed some of the processes emerging from a pilot study of sources of ineffectiveness of professional socialization. The next section offers some techniques for both neophytes and gate-keepers to improve the effectiveness of professional socialization.

3. Improving the Effectiveness of Professional Socialization

One of the themes emerging from the pilot project and the national survey data was the sense of exclusion from the informal colleague or apprenticeship relationship with faculty.

Graduate student organizations can provide an ideal mechanism for students to develop the interpersonal and professional skills which contribute to their sense of colleagueship and apprenticeship. The paradox is that many students are so involved in their individual progress or paralysis that they fail to see the possibility of organizational solutions. This is particularly true for students who see problems in graduate school as evidence of personal failure and ineptitude, rather than evidence of problems shared by most students. Until quite recently, women have tended to internalize blame for these problems, while men have tended to project it on faculty, and on the system.

THE PROBLEM IS TO HELP STUDENTS RECOGNIZE THAT IT IS TO THEIR ADVANTAGE TO BECOME INVOLVED IN DEPARTMENTAL STUDENT ORGANIZATIONS, IN ORDER TO TAKE RESPONSIBILITY FOR THEIR OWN PROFESSIONAL GROWTH AND DEVELOPMENT. THERE APPEARS TO BE CONSIDERABLE STUDENT RESISTANCE TO THE IDEA OF "PROFESSIONAL SOCIALIZATION," IN WHICH STUDENTS ARE REWARDED FOR BECOMING MORE AND MORE LIKE THE FACULTY, AND PENALIZED FOR SERIOUS DEVIATION FROM THE FACULTY MODEL OF "APPROPRIATE" PROFESSIONAL ACADEMIC BEHAVIOR. THIS RESISTANCE COMES FROM MEN AS WELL AS WOMEN, AND NEEDS TO BE EXPLORED. PART OF IT MAY STEM FROM REJECTION OF THE PASSIVITY AND DENIAL OF AUTONOMY IMPLIED IN THE PROCESS OF BEING SOCIALIZED BY AUTHORITY FIGURES WHO ARE SOLELY RESPONSIBLE FOR DETERMINING STANDARDS OF EVALUATION. PART OF IT MAY STEM FROM REJECTION OF THOSE STANDARDS OF EVALUATION. PART MAY STEM FROM A DISINCLINATION TO ACCEPT THE GIVEN MODELS OF APPROPRIATE PROFESSIONAL ATTITUDES AND BEHAVIOR.

STUDENTS SHOULD BE ENCOURAGED TO ORGANIZE ON THEIR OWN BEHALF TO IMPROVE COMMUNICATIONS AMONG EACH OTHER, AND WITH FACULTY; TO FIND OUT, AND MAKE EXPLICIT THE STANDARDS OF EVALUATION GOVERNING PERFORMANCE AND PROFESSIONAL BEHAVIOR; TO EXPLORE AND MAKE EXPLICIT ALTERNATIVES TO ACCEPTED MODELS OF APPROPRIATE PROFESSIONAL ATTITUDES AND BEHAVIOR; TO FIND OUT, AND MAKE EXPLICIT THE OPPORTUNITIES AND LIMITATIONS FOR EMPLOYMENT IMPOSED BY THE RAPIDLY CHANGING SUPPLY AND DEMAND FOR DOCTORATES IN EACH FIELD.

SOME MIGHT ARGUE THAT SUCH ACTIVITIES ARE THE PRIMARY RESPONSIBILITY OF THE FACULTY. HOWEVER, FOR FACULTY TO CONTINUE TO SPOON-FEED STUDENTS WITH THE RULES FOR SUCCESS BECOMES THE WORST FORM OF PATERNALISM AND DENIAL OF STUDENT AUTONOMY. THE PARADOX IS THAT STUDENTS HAVE TO ACT LIKE COLLEAGUES AND APPRENTICES IN ORDER TO BE SO TREATED, AND THEY HAVE TO FEEL LIKE COLLEAGUES AND APPRENTICES IN ORDER TO ACT ACCORDINGLY.

THERE IS CONSIDERABLE VARIATION ACROSS DISCIPLINES IN THE KINDS OF ATTITUDES AND COMMITMENTS REQUIRED FOR SUCCESS. ONE POSSIBLE APPROACH TO STUDENT INITIATED ORGANIZATIONS IS OUTLINED IN APPENDIX II , BUT IT WOULD NEED TO BE TAILORED TO MEET THE SPECIAL NEEDS OF INDIVIDUAL DEPARTMENTS, CURRICULUM REQUIREMENTS, AND JOB OPPORTUNITIES AND LIMITATIONS.

THIS PAPER HAS SHOWN LARGE SEX AND DISCIPLINE DIFFERENCES IN THE EFFECTIVENESS OF PROFESSIONAL SOCIALIZATION, EXPLORED SOME OF THE SOURCES OF INEFFECTIVE SOCIALIZATION FOR NEOPHYTES AND GATE-KEEPERS, AND OFFERED SOME TECHNIQUES FOR HELPING NEOPHYTES AND GATE-KEEPERS DISCOVER MOR EFFECTIVE WAYS TO ACHIEVE PRROFFESSIONAL SOCIALIZATION.

IN CONCLUSION, I WOULD LIKE TO SUGGEST THAT ONEOF THE MAJOR PROBLEMS FOR NEOPHYTES AND GATE-KEEPERS HAS TO DO WITH THE DEGREE OF FIT BETWEEN THE NORMS AND VALUES OF NEOPHYTES AND OF GATE-KEEPERS. NOT ALL GRADUATE STUDENTS WANT TO EARN THE NOBEL PRIZE IN THEIR FIELD. SOME HAVE MORE MODEST ASPIRATIONS FOR TEACHING AND DOING RESEARCH FOR THE JOY OF DOING IT. MANY, MEN, AS WELL AS WOMEN, WANT TO DEVOTE SOME OF THEIR TIME, ENERGY, AND COMMITMENT TO FAMILY AND PERSONAL LIFE. THE THE EXTENT THAT FACULTY WHO HAVE MADE IT IN A HIGHLY COMPETITIVE SYSTEM BY THEIR OWN INTENSE COMMITMENT TO THEIR FIELD IMPOSE EXPECTATIONS OF THE SAME KIND OF COMMITMENT ON STUDENTS, THOSE WITH MORE MODEST ASPIRATIONS WILL BE EVALUATED DIFFERENTLY THAN THOSE WHO ALREADY WANT TO BECOME LIKE HIGHLY SUCCESSFUL FACULTY.

MY HOPE IS THAT WE MIGHT REVISE PROFESSIONAL SOCIALIZATION TO TAKE INTO ACCOUNT THE DIFFERING CAREER GOALS, CHANGING JOB MARKETS, NEEDS AND EXPECTATIONS OF STUDENTS, WITHOUT FORCING THEM INTO THE PROCRUSTES BED OF FACULTY DEFINED STANDARDS OF WHAT FLOURISHING IN GRADUATE SCHOOL MEANS.

RECOMMENDATIONS BASED ON THE PILOT PROJECT

A MAJOR THEME EMERGING FROM THE PILOT PROJECT WAS THAT OF PERVASIVE LOW MORALE AMONG GRADUATE WOMEN. THE INTERDISCIPLINARY DISCUSSION GROUPS PROVIDED A THERAPEUTIC CONTEXT IN WHICH THOSE WHO PARTICIPATED WERE ABLE TO COME TO TERMS WITH THEIR FEELINGS ABOUT GRADUATE SCHOOL IN A SUPPORTIVE SETTING.

CLOSE SUPERVISION BY AN OUTSIDE CONSULTANT WITH SPECIAL TRAINING IN GROUP PROCESSES HELPED THE CO-FACILITATORS KEEP THE DISCUSSIONS FROM DETERIORATING INTO DESTRUCTIVE SCAPEGOATING DIATRIBES AGAINST PARTICULAR INDIVIDUALS OR DEPARTMENTS. THE INTERDISCIPLINARY NATURE OF THE GROUPS WAS ANOTHER IMPORTANT FACTOR IN THEIR SUCCESS. IT PERMITTED EXAMINATION AND ANALYSIS OF PROCESSES, RATHER THAN PEOPLE, AND GAVE STUDENTS AN OPPORTUNITY TO COMPARE THEIR OWN EXPERIENCES WITH THOSE OF STUDENTS IN OTHER DEPARTMENTS.

THE NATIONAL SURVEY OF GRADUATE STUDENTS SUGGESTS THAT MORALE IS A SERIOUS PROBLEM FOR WOMEN, IT MAY ALSO BE A PROBLEM FOR MEN. THE OPPORTUNITY FOR COMING TO TERMS WITH ONE'S FEELINGS ABOUT GRADUATE SCHOOL SHOULD BE EXTENDED TO THEM.

RECOMMENDATION # 1. THE INTERDISCIPLINARY EXPLORATIONS SHOULD BE EXTENDED TO MEET THE NEEDS OF MEN AS WELL AS WOMEN. PROVISION SHOULD BE MADE FOR SETTING UP ADEQUATE CONTROL GROUPS, SO THE ACTUAL BENEFIT OF THE GROUPS CAN BE MEASURED ACCURATELY.

NOT ENOUGH IS KNOWN ABOUT FACULTY PERSPECTIVES ON THE CAUSES OF DOCTORAL ATTRITION. THE BERELSON(1960) STUDY SUGGESTS A TENDENCY TO ATTRIBUTE FAILURE TO LACK OF ABILITY AND UNWILLINGNESS TO DO THE WORK. THE SECOND RECOMMENDATION IS SEEN AS A FIRST STEP TOWARD CLARIFYING THE DIMENSIONS OF FACULTY PERSPECTIVES ON THE ATTRITION PROBLEM. THEIR YEARS OF EXPERIENCE AS GRADUATE ADVISORS AND DISSERTATION CHAIRMEN COULD PROVIDE INVALUABLE INSIGHT INTO DEVISING WAYS OF REDUCING ATTRITION.

RECOMMENDATION # 2. INTERDISCIPLINARY DISCUSSIONS SHOULD BE SET UP AMONG FACULTY TO EXPLORE THEIR PERCEPTIONS OF THE DOCTORAL ATTRITION PROGRAM.

A CASE WAS MADE FOR THE IMPORTANCE OF DEPARTMENTALLY BASED, STUDENT INITIATED ORGANIZATIONS TO PROVIDE AN INSTITUTIONALIZED MEANS FOR STUDENTS TO ACHIEVE THEIR OWN AUTONOMY.

RECOMMENDATION # 3. DEPARTMENTS SHOULD ENCOURAGE STUDENTS TO WORK AGGRESSIVELY ON THEIR OWN BEHALF BY MAKING IT CLEAR THAT SUCH ACTIVITIES ARE *IPSO FACTO* EVIDENCE OF PROFESSIONAL BEHAVIOR.

Appendix I

GRADUATE WOMEN'S PROJECT

This project derives from two women's personal encounters with graduate education; it is an attempt to define and articulate problems faced by women in graduate school and to generate alternative solutions to those problems.

The project consists of an eight week exploration and examination of institutional and psychological barriers to success in doctoral programs. One of the goals of the project is to isolate those problems common to all graduate students from those problems that are unique to women. What we learn from the project will be used for two complementary purposes: First, to help women help themselves through doctoral programs; second, to help develop an effective, ongoing Affirmative Action program for students and faculty.

Co-facilitators are Lucy W. Sells and Nancy Isaac Kuriloff. Ms. Sells is a doctoral candidate in Sociology who is investigating attrition in doctoral programs. Ms. Kuriloff is a doctoral candidate in Higher Education who is specializing in problems of studenthood, and institutional and psychological barriers to learning . Both are concerned about the waste of human resources and the expense of spirit in graduate programs. Both are interested in developing therapeutic contexts for learning at the sociological and psychological levels.

Appendix II

STUDENT ORGANIZATION ACTIVITIES

Students could learn to become autonomous in three major areas of their graduate careers by organizing seminars around those areas, and taking the initiative to invite faculty to contribute their special expertise on particular topics.

The first major area is that of clarifying for first year students precisely what a serious professional commitment involves. This could be done in a seminar held by advanced doctoral students on behalf of entering students during the first quarter. Weekly sessions would be held, with guest speakers, where appropriate. The text will be Pierre van den Berghe, ACADEMIC GAMESMANSHIP, New York, Abelard, 1970. This book, combined with the seminar discussions, will help first year students decide early in their graduate careers whether they really want to commit themselves to academic careers. Topics will include:

1. Introduction to the department: Overview, and introduction of entire faculty to first-year students. Examination of diversity of research interests, theoretical perspectives, and the methodological strategies of faculty. This will help students decide with whom they might be intellectually compatible during their first quarter.

2. Introduction to the job market, for persons with Master's degrees and with Doctorates. Presentation of data on approximate number of new doctorates at Berkeley, top ten, and nationwide departments; approximate number of openings each year, nationwide, and at various types of institutions; range of job alternatives open (graduate teaching and research; undergraduate teaching; industry; business; government - federal, state, local; private research organizations; other options.)

The remaining sessions will be devoted to the means of achieving career advancement, given the options available, and those in which the student is interested. Means to advancement include:

3. Publications: Importance of research and publications in each of the career options; which journals most appropriate for which options; how to submit papers; constructive ways of handling rejections.

4. Graduate student job experience: How to make teaching assistantships and research assistantships contribute toward career advancement, rather than impede it; importance of early building up of Vita; extra-curricular activities that will enhance or hinder.

5. Organization membership: Which scholarly, scientific, or professional societies are important for each of the career alternatives? How do you join them? How do you use them for career advancement? Importance of participation in regional and national meetings; importance of developing relations with graduate students with similar research interests at other institutions.

6. Fellowships and research grants. Letters of recommendation, based on classroom performance, publications, job experience; recognizing the importance of choosing research topics with long-range payoff in terms of theoretical and empirical fertility in your substantive areas.
7. First postdoctoral job strategies for various alternatives.

The second function would be filled by a series of seminars for students preparing for qualifying examinations. These would be organized around substantive areas in the discipline, so that students working in similar areas could work together in carving out the major issues and codifying relevant materials in preparation for exams. The underlying assumption is that students will be free to work hard to meet each other's expectations, and that they work harder in such a context than in meeting the imaginary expectations of the faculty person who will ultimately be deciding whether they pass or fail.

The third function would be filled by a parallel series of seminars for students engaged in dissertation research. It would provide students who are working on similar research topics with an opportunity to resolve some of the intellectual issues involved in the design, execution, and writing up of their research before submitting it for evaluation by the members of the evaluating committee.